

Isolator SMA Female With 17 dB Isolation From 1 GHz to 2 GHz Rated to 10 Watts

The SFI1020 is a single junction isolator offering a forward power rating of 10 Watts CW and reverse power rating of 5 Watts CW over an operational frequency band of 1 to 2 GHz. This coaxial isolator uses SMA female connectors on all ports and has a minimum of 17 dB isolation.

Fairview Microwave offers a wide variety of isolators to fit your needs. These are two-port devices that transmit microwave or radio frequency power in one direction only and block the signal in the opposite direction. They can be thought of as a diode for RF energy. Isolators are used to isolate equipment from the effects of conditions outside of the equipment. For instance they are used to prevent a microwave source being detuned by a mismatched load. Fairview Microwave's isolators feature excellent insertion loss, high isolation and reliability.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1		2	GHz
Impedance		50		Ohms
Insertion Loss			0.75	dB
Isolation	17			dB
VSWR			1.4:1	
Forward Power, CW			10	Watts
Reverse Power, CW			5	Watts

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Size	
Length	2.44 in [61.98 mm]
Width	2.58 in [65.53 mm]
Height	1.14 in [28.96 mm]
Weight	0.97 lbs [439.98 g]
Body Material and Plating	Aluminum

Configuration

Design	Single Junction
Direction	1 to 2
Package Style	Connectorized
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature	
Operating Range	-40 to +70 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:



Features:

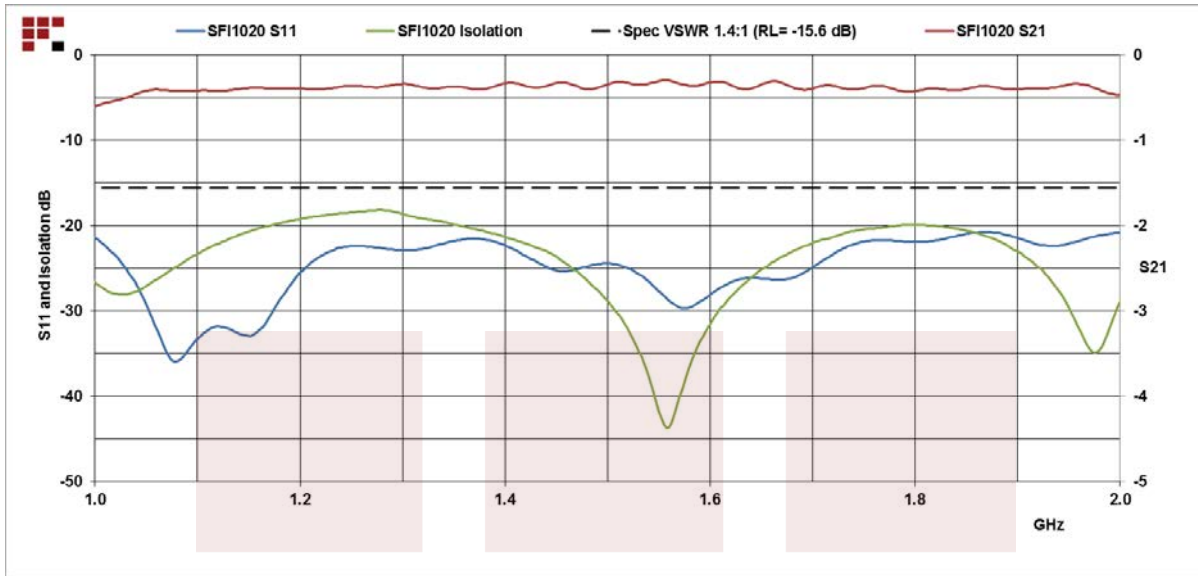
- 1 to 2 GHz Frequency Range
- Max Forward Power 10 Watts CW
- Max Reverse Power 5 Watts CW
- Insertion Loss < 0.75 dB
- VSWR < 1.4:1
- Isolation > 17 dB
- SMA Female Connectors

Applications:

- Radar Systems
- Military
- Wireless Radio Systems
- Telecom Infrastructure
- Communication Systems
- R&D Labs
- Microwave Radio Systems

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Typical Performance Data

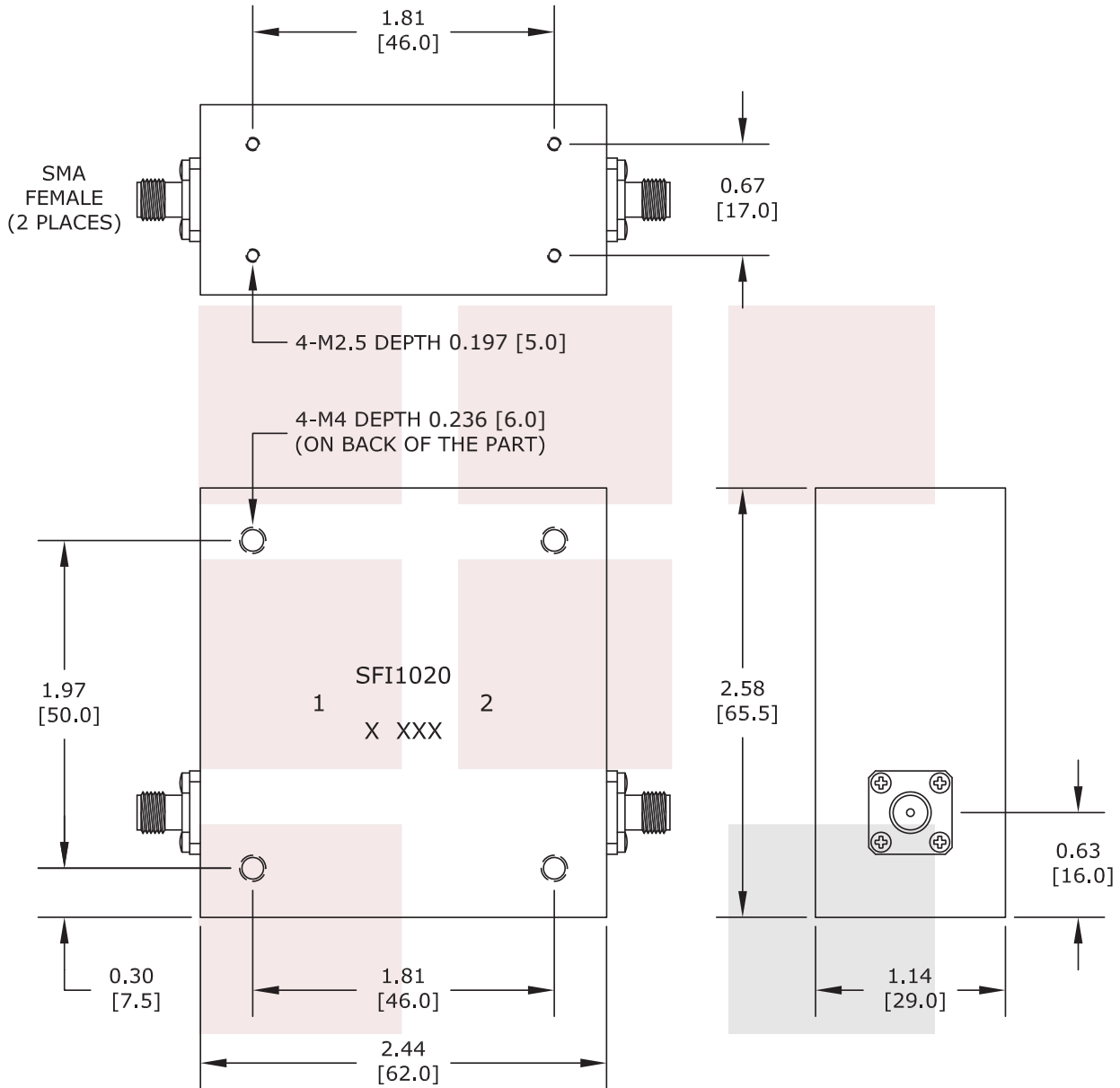


Isolator SMA Female With 17 dB Isolation From 1 GHz to 2 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Isolator SMA Female With 17 dB Isolation From 1 GHz to 2 GHz Rated to 10 Watts SFI1020](#)

URL: <https://www.fairviewmicrowave.com/sma-isolator-19-db-isolation-1-2-ghz-0-watts-sfi1020-p.aspx>

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE	DWG NO	CAGE CODE
Isolator SMA Female With 17 dB Isolation From 1 GHz to 2 GHz Rated to 10 Watts	SFI1020	3FKR5
CAD FILE	SHEET	SCALE
051117		N/A
SIZE		
A	2233	